Title (en)

TAP HOLE DRILLING MACHINE FOR BLAST FURNACE, DRILL BIT FOR USE IN TAP HOLE DRILLING MACHINE, AND TAP HOLE DRILLING METHOD

Title (de)

ABSTICHLOCHBOHRMASCHINE UND VERFAHREN FÜR HOCHOFEN UND BOHRER ZUR VERWENDUNG MIT DER BOHRMASCHINE

Title (fr)

MACHINE FOREUSE DE TROUS DE COULEE POUR HAUT FOURNEAU, FORET A UTILISER DANS CETTE MACHINE FOREUSE DE TROUS DE COULEE, ET PROCEDE DE FORAGE DE TROUS DE COULEE

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Abstract (en)

[origin: US6086816A] PCT No. PCT/KR97/00080 Sec. 371 Date Jan. 7, 1999 Sec. 102(e) Date Jan. 7, 1999 PCT Filed May 8, 1997 PCT Pub. No. WO98/50590 PCT Pub. Date Nov. 12, 1998A tap hole drilling machine, a drill bit for use in it, and a drilling method are disclosed. A nitrogen gas supply line for pressurised nitrogen as a carrier gas and a cooling water supply line are provided to form water mist for cooling the drill bit, the drill rod, the main body of the drilling machine and the tap hole. Thus the drilling time period is markedly shortened, the molten iron discharge time period is significantly increased, and the net consumption rate of the refractory material is considerably decreased. Therefore, by properly adjusting the amount of the molten iron existing within the lower portion of the blast furnace, the condition of the blast furnace can be stabilized, and the productivity can be improved. Advantageous conditions can be provided for the operation even under a high pressure and a high temperature environment.

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